

Supporting Information for

An objective matched-filter technique,

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Table S.1: Events from the JMA catalog, which caused the observed waveforms, used as the template. The mainshock is in the bottom.

No.	Origin Time (JST)	Lat.(°)	Long.(°)	Depth(km)	M
01	2011-06-29 19:32:38.80	36.190	137.953	4.2	3.4
02	2011-06-29 19:34:44.07	36.189	137.954	3.9	1.0
03	2011-06-29 19:34:48.99	36.188	137.952	3.3	1.5
04	2011-06-29 19:35:29.14	36.185	137.955	4.3	0.9
05	2011-06-29 19:36:58.98	36.192	137.952	4.5	0.1
06	2011-06-29 19:37:05.01	36.188	137.954	4.7	1.7
07	2011-06-29 20:03:21.31	36.195	137.947	3.8	-0.1
08	2011-06-29 20:04:07.47	36.193	137.953	4.6	2.8
09	2011-06-29 20:05:22.30	36.193	137.954	4.5	2.2
10	2011-06-29 20:17:50.64	36.193	137.953	4.2	1.8
11	2011-06-29 20:37:05.29	36.189	137.948	3.5	-0.1
12	2011-06-29 20:58:58.26	36.198	137.951	4.9	2.3
13	2011-06-29 21:08:53.36	36.189	137.955	3.6	0.8
14	2011-06-29 21:21:03.53	36.188	137.955	3.6	0.6
15	2011-06-29 22:02:11.19	36.187	137.958	4.1	0.5
16	2011-06-29 22:15:55.52	36.187	137.956	3.8	0.9
17	2011-06-29 22:17:59.47	36.186	137.953	3.6	-0.3
18	2011-06-29 22:23:20.40	36.187	137.954	3.2	1.3
19	2011-06-29 22:28:37.93	36.193	137.955	4.8	0.3
20	2011-06-30 00:11:40.79	36.189	137.956	5.4	0.2
21	2011-06-30 00:56:56.58	36.190	137.954	4.2	1.5
22	2011-06-30 01:26:44.45	36.194	137.953	4.0	0.5
23	2011-06-30 01:39:53.64	36.190	137.954	4.4	1.6
24	2011-06-30 04:45:28.48	36.194	137.952	4.6	2.4
25	2011-06-30 05:26:36.43	36.194	137.952	4.5	1.5
26	2011-06-30 07:53:02.28	36.188	137.952	4.6	0.3
27	2011-06-30 08:08:38.04	36.184	137.956	4.2	1.6
	2011-06-30 08:16:37.06	36.188	137.955	4.3	5.4

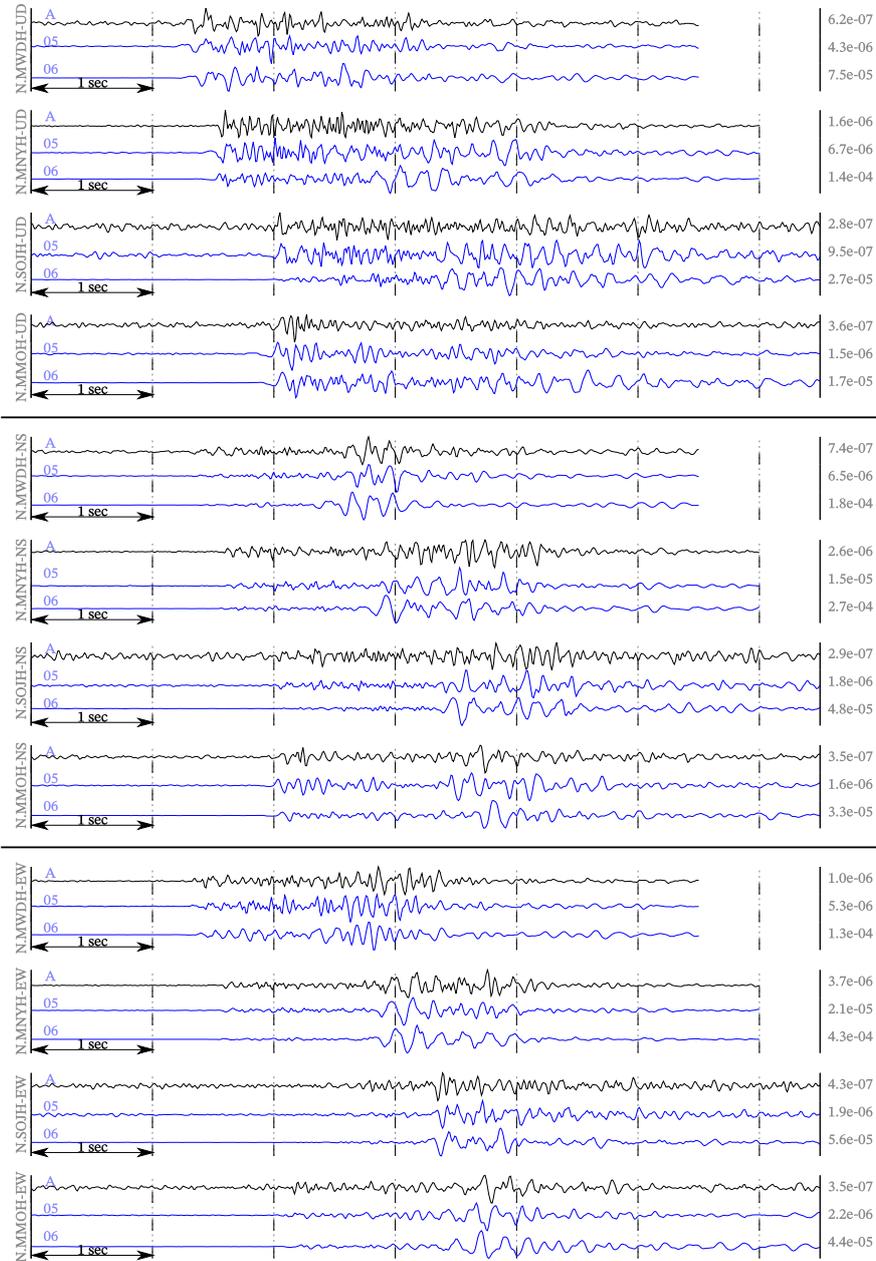


Figure S.1: UD, NS, and EW components of the detected (black) and template (blue) waveforms recorded at N.MWDH, N.MNYH, N.SOJH, and N.MMOH stations from top to bottom. The left edges of template waveforms are aligned at the origin time of each event. ID (A) and No. (05, 06) refer to Table 1 and S.1, respectively. The differences between the maximum and minimum value of each [m/s] are shown in the right side.

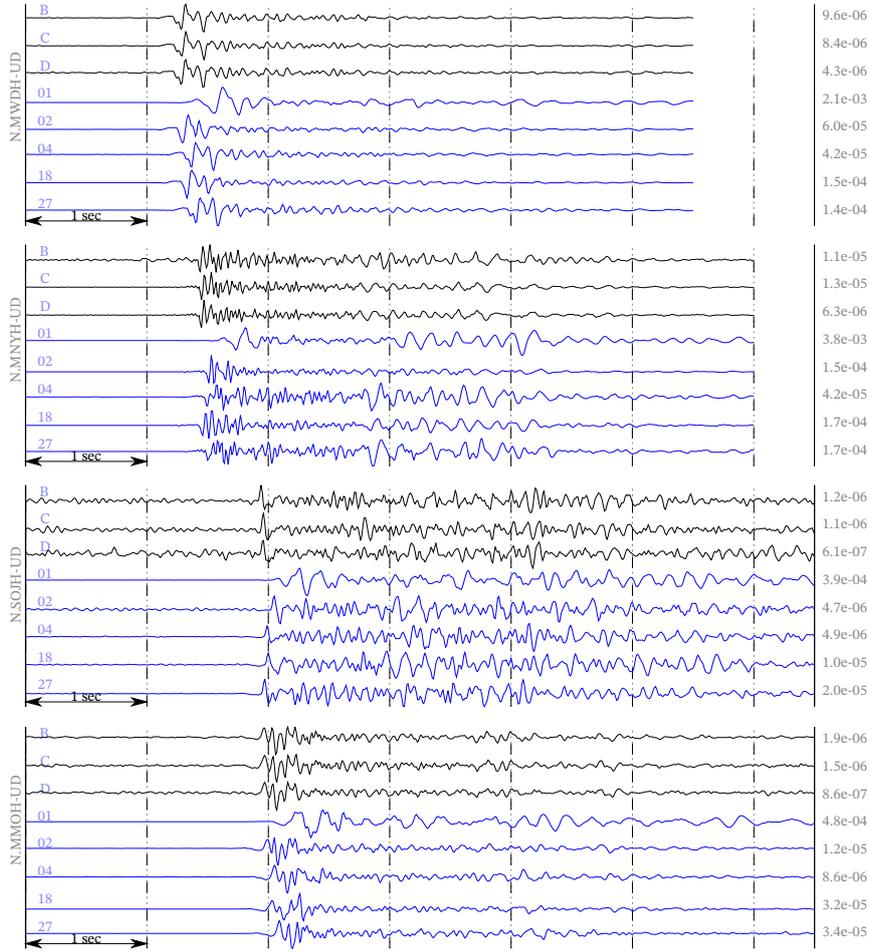


Figure S.2: UD component of the detected (black) and template (blue) waveforms recorded at N.MWDH, N.MNYH, N.SOJH, and N.MMOH stations from top to bottom. The left edges of template waveforms are aligned at the origin time of each event. ID (B, C, and D) and No. (01, ..., 27) refer to Table 1 and S.1, respectively. The differences between the maximum and minimum value of each [m/s] are shown in the rightside.

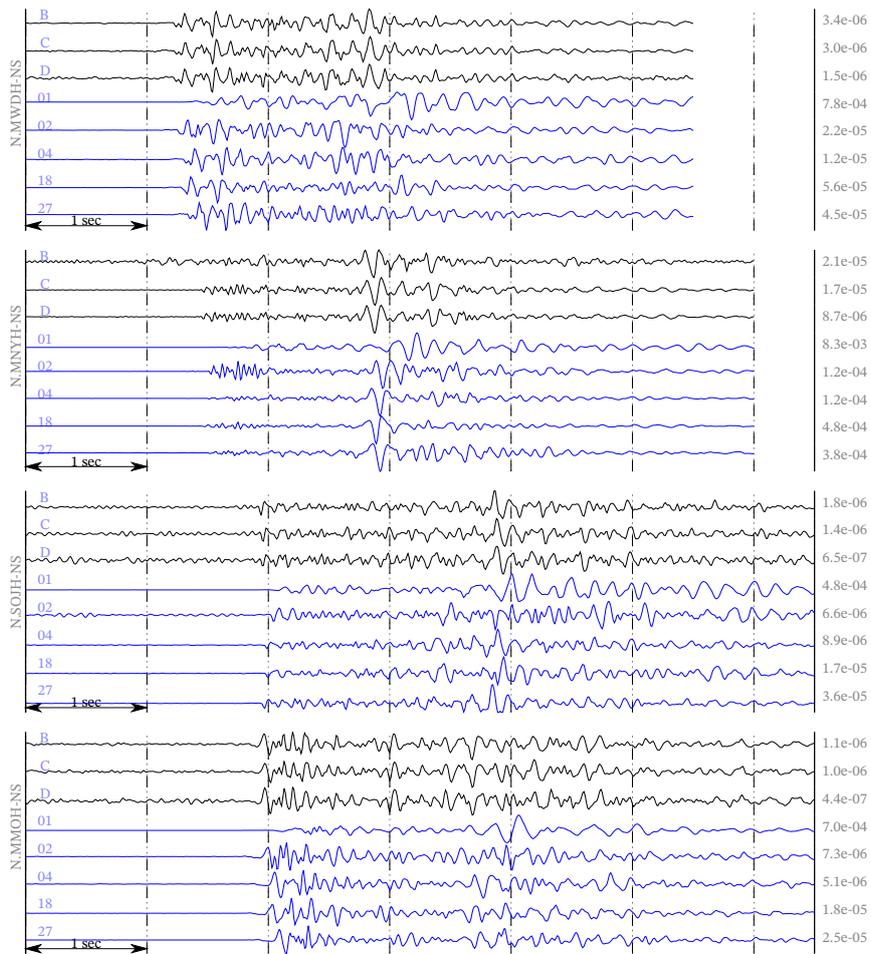


Figure S.3: NS component of the detected and template waveforms.

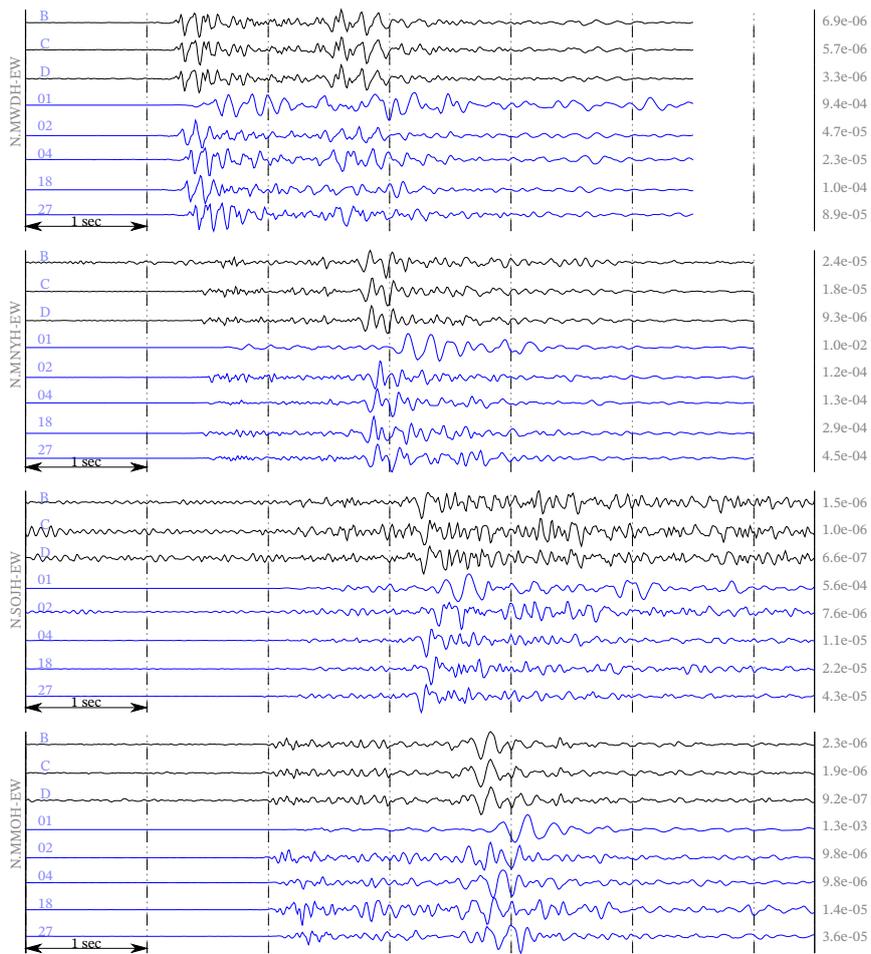


Figure S.4: EW component of the detected and template waveforms.